

the same ground and "strike it rich." But it is also well understood that the average professional geologist very much underrates the practical experience and "signs" of the prospector, and vice versa. If each would condescend to grasp and use the knowledge of the other in conjunction with his own, then better results would be obtained and mutual respect would exist between geologists and prospectors, which it can not be said to do to-day.

And although I am sure the abundance or sparsity of *Eriogonum ovalifolium* is no sign as to the presence or the absence of silver or other metal in the soil (for it grows in any formation, lime, sandstone, etc.), I would not presume to say the same of other "indicating plants," individually unknown to me.—F. W. ANDERSON, *Great Falls, Montana*.

**Some western plants.**—In examining some western collections recently, an interesting fact or two with respect to the range of certain plants has been brought to light. *Phlox Richardsonii* Hook., of the Arctic sea-coast, was found by Mr. F. W. Anderson, in May of this year, growing in great abundance upon Mt. Helena, Montana. It had previously been discovered by Scribner in the Belt Mountains, Montana. Mr. W. M. Canby's corps, on their northern transcontinental survey, discovered a form of *Trautvetteria palmata*, and now it turns up from Idaho, collected by J. B. Leiberg. *Pentstemon Lyallii* Gray, of British Columbia, and extending into the borders of Montana, has been sent in by Mr. J. B. Leiberg from Kootenai county, Idaho, growing on rocky banks, 3,000 to 6,000 feet altitude.—JOHN M. COULTER.

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## EDITORIAL.

A FEW writers are inclined to scatter their thoughts before the public with a too lavish hand. Facts of interest secured in an investigation are arranged to be presentable and ushered into the presence of the public through the medium of some society or journal. Without adding materially to the number of facts the language with which they are clothed is readjusted and another society or journal receives them. This shifting may be repeated several times, and the facts turn up in various places. Each time the reader, if not on his guard, will naturally suppose he is perusing the first and only statement of the kind, there being nothing to indicate that the author has already published other versions of the same matter. We do not have in mind the case where a paper read before a society is printed in a magazine to secure earlier publication, reference being made to the time and place of its first presentation; or to the case where an article is reprinted in one or more journals, due credit being given; or the case where an author writes up a part of a

subject, and subsequently presents another part; or the case where new facts are first published in a scientific journal and then worked over into popular form for the weekly press or any ephemeral publication. We are not thinking of these, but of the presentation of scientific facts in different journals, society reports, etc., under various guises, without adequately stating where and how they previously appeared. The neglect to take this precaution, when publication through one medium is not deemed sufficient, as usually ought to be the case, leads to much confusion and annoyance when another investigator goes over the same ground, and also has the effect of lowering the standard of appreciation with which thoughtful persons regard the author's writings. It suggests the idea that the author must be deficient in solid facts, or he would not require so much service of those he brings forward; and unpleasant suggestions also present themselves regarding the author's motives in thus using his material over and over. It may be supposed that scientific men of eminence would never fall into such practices, and yet conspicuous examples are not wanting.

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## OPEN LETTERS.

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### Vitality of seeds.

About twenty years ago, when "White Hall," upon the grounds of the Maine State College was built, the excavated dirt was used to make a fill, covering the surface of the ground four or five feet. This year, to lay some sewer pipes, a ditch was cut through the old fill, and along the side of the ditch, four feet below the present surface, seeds in considerable numbers germinated.

The plants did not develop sufficiently before the ditch was filled to determine the species.

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### The old and new botany.

In the April number of your magazine, the editorial on the methods of teaching botany attracted my attention. While heartily agreeing with the general sentiment expressed, I wish to offer some criticism, or call attention to that aspect of the new method which is considered, in some quarters at least, as the only true biological method.

You close the article with the sentence, "The botanical teaching of the future will consider these, not as two opposing methods, but as complementary, both essential to the rounding out of a botanical course." This implies that at the present time these two methods, the old and the new, may be considered as opposing each other. It seems to me we do not need to wait for the future to teach us that there can be no real opposition between them, for according to their definition in the editorial they refer simply to different departments of the same science. By the old method is meant the teaching of systematic botany, by the new, the teaching of types and the grounding in biological (physiological?) prin-